## WHAT IS CLAIMED IS:

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- 1. A method for the detection of an base sequence of interest in a sample DNA or RNA comprising the steps of:
- (1) contacting a sample DNA or RNA to probe DNAs or
  5 RNAs in an aqueous solution to form a hybridization complex;
  - (2) isolating the hybridization complex;
  - (3) dissociating the hybridization complex to recover the probe DNAs or RNAs; and
- 10 (4) identifying the said probe DNA or RNA to detect an base sequence of interest in the sample DNA or RNA.
  - 2. The method according to claim 1, wherein the hybridization is carried out in such a manner that any of the sample DNA or RNA and the probe DNAs or RNAs is not immobilized.
  - 3. The method according to claim 1 or 2, wherein plural kinds of probe DNAs or RNAs are used.
  - 4. The method according to any of claims 1 to 3, wherein the probe DNAs or RNAs are labeled with fluorescent substance.
    - 5. The method according to any of claims 1 to 4, wherein the probe DNAs or RNAs are identified by means of hybridization with a complementary chain DNA thereof.
- 6. The method according to claim 5, wherein the complementary chain DNAs or RNAs are immobilized.

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7. The method according to claim 6, wherein the immobilized complementary chain DNAs or RNA are in a form of a DNA chip.